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BEFORE THE ARIZONA CORPORATION COMMISSION

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IN THE MATTER OF THE APPLICATION OF
ARIZONA-AMERICAN WATER COMPANY,
INC., AN ARIZONA CORPORATION, FOR A
DETERMINATION OF THE CURRENT FAIR
VALUE OF ITS UTILITY PLANT AND
PROPERTY AND FOR INCREASES IN ITS
RATES AND CHARGES BASED THEREON
FOR UTILITY SERVICE BY ITS PARADISE
VALLEY WATER DISTRICT.

Docket No. W-01303A-05-0405

IN THE MATTER OF THE APPLICATION OF
ARIZONA-AMERICAN WATER COMPANY
FOR APPROVAL OF AN AGREEMENT
WITH THE PARADISE VALLEY COUNTRY
CLUB.

Docket No. W-01303A-05-0910

RUCO'S CLOSING BRIEF

INTRODUCTION

The Residential Utility Consumer Office ("RUCO") submits this Brief in support of its position that the Arizona Corporation Commission ("Commission") should authorize a rate decrease of (\$436,352) for the Paradise Valley Water District of the Arizona American Water Company ("Arizona American" or "Company"). While there are several issues in dispute and will be addressed in this Brief, RUCO's primary contention is that the Commission should reject the joint proposal of Staff and the Company to include in ratebase discretionary improvements. These discretionary expenditures, which concern fire flow improvements and

1 will total a minimum of \$16 million, will have the effect of doubling the Company's ratebase. In
2 this time of soaring utility rates in every sector this Commission regulates, it is unwise to set a
3 precedent allowing utilities to ratebase discretionary expenditures. Instead, the entity
4 requesting the discretionary plant in this case should be encouraged to contribute it to the
5 Company.

6
7 **THE COMMISSION SHOULD REJECT THE JOINT PROPOSAL OF STAFF AND THE
COMPANY TO INCLUDE IN RATEBASE DISCRETIONARY FIRE FLOW IMPROVEMENTS**

8
9 **1) BACKGROUND**

10 In 2002, the Town of Paradise Valley ("Town") became concerned with its fire flow
11 capabilities following a large fire that occurred as the result of a lightning strike. A-4¹ at 3. In
12 April 2003, the Company and the Town's Water Committee entered into discussions on ways
13 to improve the Town's water capacity in order to provide adequate fire flow protection. Id. The
14 Company explained to the Town that fire flow standards are not set by the Commission, and
15 proposed establishing a working group to address the issue with the community. Id.

16 In July 2003, the Company and the Town formed the Paradise Valley Water Users
17 Group ("Group") which thereafter met and established priorities for the Company to follow in its
18 consideration of discretionary improvements. Id. at 4. The Company, acting on the Group's
19 recommendation developed a six-year, \$15.5² million fire flow improvement plan. Id. at 5.
20 The Town advised the Company that the Town believed it was prohibited by A.R.S. §9-514
21 and/or the Gift Clause of the Arizona Constitution from funding the improvements and

22
23 ¹ For ease of reference, trial exhibits will be identified similar to their identification in the Transcript of Proceedings.
The Transcript volume number and page number will identify references to the Transcript.

24 ² That figure appears to be escalating with estimates as high as \$20 million. Transcript at 405, R-11 at 5.

1 requested that the Company make the discretionary improvements. R-1. Thus, the Company
2 was aware that it would have to guarantee its own source of funding.

3 At some point in 2004, the Company started the discretionary improvements. Transcript
4 at 157. The Company had not sought pre-approval to make the improvements or for funding
5 from the Commission. Moreover, the Company had accepted the Town's explanation
6 regarding its legal impediments to fund the discretionary improvements without verifying the
7 explanation with the Company's attorneys. Id. at 156³.

8
9 **2) TYPICALLY, ADVANCES OR CONTRIBUTIONS ARE REQUIRED TO FUND**
10 **DISCRETIONARY PLANT. RATEBASING DISCRETIONARY FIRE FLOW**
11 **IMPROVEMENTS IS EXTRAORDINARY RATE MAKING AND NOT JUSTIFIED BY**
12 **THE CIRCUMSTANCES OF THIS CASE.**

13 The Arizona Constitution charges the Commission with setting reasonable rates. Article
14 15, § 3 of the Constitution. Arizona Administrative Code ("A.A.C.") R14-2-407 (E) requires a
15 minimum standard delivery pressure of 20 pounds per square inch gauged at the customer's
16 meter or point of delivery. There is no other Commission Rule, policy or statute that governs
17 or sets a fire flow standard. There is no regulatory rate making principle that requires or even
18 supports a fire flow standard. As the Company willingly admits, the proposed \$16 million in fire
19 flow improvements is a discretionary expenditure. A-19 at 27.

20 Typically, as the Company also admits, when a third party⁴ requests the construction of
21 additional water infrastructure from a regulated utility, the Commission requires an Advance in
22 Aid of Construction or a Contribution in Aid of Construction. Transcript at 159, R-11 at 8. This
23 rate treatment is especially appropriate when the cost of the expenditures outweighs the

24 ³ Not to the knowledge of the Company witness, Brian Biesemeyer who testified on the subject.

⁴ The Company admits with regard to a developer. Transcript at 159.

1 expected revenue from the project. R-11 at 8. Here, the discretionary expenditures will double
2 the ratebase and **will not produce any additional revenue.** Id. at 4, Transcript at 405, S-1 at
3 5. If anything, the balance is weighted against rate basing the discretionary improvements in
4 this case given the fact that the discretionary fire flow expenditures are non-revenue
5 producing. The Commission should not approve the discretionary fire flow improvements.

6
7 **3) THE FACT THAT RATEPAYERS WOULD BENEFIT OR THE TOWN HAS A LOCAL**
8 **ORDINANCE THAT SETS FIRE FLOW MINIMUMS IS NOT SUFFICIENT**
9 **JUSTIFICATION FOR THE COMMISSION TO RATEBASE DISCRETIONARY**
10 **EXPENDITURES.**

11 There appears to be two reasons why Staff and the Company are recommending rate
12 base treatment of discretionary expenditures. First, ratepayers would benefit because the
13 discretionary improvements are what ratepayers want, and second, they encourage
14 improvements in public fire safety. Transcript at 157 – 158, 504, S-1 at 5. RUCO does not
15 take issue with the aforementioned benefits, but this argument misses the point. The issue is
16 not the benefit but who is going to pay for the benefit.

17 It is laudable that the people and the Town want to improve their public fire safety
18 conditions. RUCO would never stand in the way or suggest that the Commission stand in the
19 way of such an admirable goal. However, it should be the party that is requesting the benefit –
20 the Town - not the water utility that pays for the improvements. Ratepayers would enjoy the
21 same benefits if the Town paid for the improvements.

22 Moreover, should the Commission consider the benefits to ratepayers; it should
23 consider all the ratepayers in Arizona, and not just the ratepayers that are served by the
24 Company in the Paradise Valley District. The Company has been engaged in discussions with
representatives from other communities regarding fire flow improvements. R-12 at 7.

1 Transcript at 425-429. While ratepayers in the Paradise Valley service area may be able to
2 absorb increased rates associated with discretionary expenditures, many, if not the majority of
3 people in other communities are on fixed incomes. The Commission should not burden
4 ratepayers with discretionary investment that could in the long run jeopardize the affordability
5 of water service in Arizona.

6
7 **4) THERE IS NO LEGAL IMPEDIMENT PREVENTING THE TOWN FROM FUNDING**
8 **THE FIRE FLOW IMPROVEMENTS**

9 The Town is requesting the discretionary fire flow improvements, but the Town refuses
10 to pay for them. The Town claims that it is legally prohibited by Arizona Revised Statute
11 ("A.R.S.") § 9-514 and/or the Gift Clause of the Arizona Constitution from spending public
12 monies to build infrastructure that would be owned by the Company. R-1. The Town's
13 reliance on A.R.S. § 9-514 and/or the Gift Clause is misplaced – there is no legal impediment
14 preventing the Town from funding the improvements.

15 A.R.S. § 9-514 provides in relevant part:

- 16 A. Before construction, purchase, acquisition or lease by a municipal corporation, as
17 authorized in §§ 9-511, 9-511.01, 9-511.02, 9-512 and 9-513, of any plant or
18 property or portion of property devoted to the business of or services rendered by
19 a public utility shall be undertaken, the construction, purchase, acquisition or
20 lease shall be authorized by the affirmative vote of a majority of the qualified
21 electors who are taxpayers of the municipal corporation voting at a general or
22 special municipal election duly called and held for the purpose of voting upon the
23 question.

24 Article 9, § 7 of the Arizona Constitution - the "Gift Clause" - provide:

Section 7. Neither the state, nor the county, city, town, municipality, or other
subdivision of the state shall ever give or loan its credit in the aid of, or make any
donation or grant, by subsidy or otherwise, to any individual, association, or corporation,
or become a subscriber to, or a shareholder in, any company or corporation, except as
to such ownerships as may accrue to the state by operation or provision of law or as
authorized by law solely for investment of the monies in the various funds of the state.

1 The Town is not the first municipality to claim A.R.S. § 9-514 and the Gift Clause
2 prohibit a local municipality from paying for a water main that would provide adequate fire
3 protection. In the *Town of Gila Bend v. Walled Lake Door Company*, 107 Ariz. 545, 490 P.2d
4 551 (1971), the Town of Gila Bend ("Gila Bend"), relying on A.R.S. § 9-514 and the Gift
5 Clause, argued that it was not legally responsible to build and pay for a water main that was to
6 benefit a single customer, Walled Lake Door Company ("Walled Lake"), pursuant to a contract
7 that Walled Lake and Gila Bend entered into. Specifically, Walled Lake owned a plant in Gila
8 Bend that was destroyed by fire. *Id.* at 547, 553. In order to reconstruct the damaged plant,
9 Walled Lake needed assurances from Gila Bend that it would provide Walled Lake with
10 adequate fire protection. *Id.* Gila Bend agreed and the two parties entered into an agreement
11 whereby Gila Bend would build the necessary water main to provide adequate fire protection in
12 exchange for Walled Lake's agreement to reconstruct the fire damaged plant. *Id.* Walled Lake
13 carried out its part of the bargain but Gila Bend failed to honor its part of the bargain, claiming
14 ARS §9-514 and the Gift Clause prohibited it from performing. *Id.* at 548, 554.

15 The Arizona Supreme Court, rejecting Gila Bend's argument, held that A.R.S. § 9-514
16 (through 9-516) deals with the power of municipalities to engage in *competition* with
17 businesses of a public nature. While these provisions would have been applicable had Gila
18 Bend sought to enter into competition with the existing water utility, such was not the case and
19 the Court rejected the argument. In the subject case, like *Gila Bend*, there is no issue of the
20 Town competing with the Company to provide water utility service. The Commission should
21 reject the Town's claim that A.R.S. § 9-514 prevents it from funding the discretionary
22 expenditures that it is requesting.

23 Moreover, the plain language of the statute itself is clearly inapplicable to the present
24 situation. A.R.S. § 9-514 concerns the construction, purchase, acquisition or lease of plant or

1 property by a municipal corporation – none of which the Town of Paradise Valley is requesting
2 or contemplating. The Town is requesting that the Company make the improvements – the
3 Town is not making the improvements, or purchasing, acquiring or leasing the Company's
4 plant. When a statute's language is clear, the Courts in Arizona will not look beyond the
5 statutes plain language to determine its meaning. *Hayes v. Continental Ins. Co.*, 178 Ariz.
6 264, 872 P.2d 668 (1994); *City of Casa Grande v. Arizona Water Company*, 199 Ariz. 547,
7 554, 20 P. 3d 590, 597 (App. 2001). The Town is not prohibited by A.R.S. § 9-514 from
8 funding the discretionary fire flow improvements.

9 The Supreme Court further dismissed Gila Bend's argument that the Gift Clause
10 prohibited Gila Bend from constructing the water main. Gila Bend's ill-fated argument, similar
11 to arguments suggested in the present case, was that construction of the main would benefit
12 only Walled Lake and therefore would violate the Gift Clause. *Town of Gila Bend* at 549, 490
13 P.2d 555. The Supreme Court noted that the evil sought to be avoided by the Gift Clause is the
14 "depletion of the public treasury or inflation of public debt by engagement in non-public
15 enterprise." *Id.*, see also *State v. Northwestern Mutual Insurance Company*, 86 Ariz. 50 at 53,
16 340 P.2d. 200 at 201 (1959). Public funds are to be spent only for "public purposes" and not to
17 "foster or promote the purely private or personal interests of any individual." *Town of Gila*
18 *Bend*, *supra*, see also *Proctor v. Hunt*, 43 Ariz. 198, 29 P.2d 1058 (1934). The Court noted
19 that each case is different and that each case must focus on the objective sought and the
20 degree and manner in which that objective affects the public welfare. *Town of Gila Bend*,
21 *supra*, see also *City of Glendale v. White*, 67 Ariz. 231 at 237, 194 P. 2d. 435 at 439 (1948).

22 In reaching its conclusion, the Court opined that the fact Walled Lake would benefit both
23 directly and indirectly should a fire occur is of "absolutely no consequence." *Town of Gila*
24 *Bend* at 549-550, 490 P.2d 551, 555-556. Merely because a company may benefit from a

1 public expenditure does not make that expenditure illegal. Id. The Court concluded that the
2 Gift Clause does not apply because there is no doubt that supplying of water for purposes of
3 preserving and protecting lives is a "public purpose" and one which will directly provide a direct
4 benefit to the public at large.

5 The Supreme Court's reasoning squarely addresses the Town's position in the present
6 case. Staff and the Company have argued, almost exclusively, that it is the "public purpose" of
7 fire protection that is the basis for their recommendation to rate base the discretionary fire flow
8 improvements. The improvements are in the public's best interest and the public will benefit
9 greatly. The Town is not prohibited by the Gift Clause from paying for the fire flow
10 improvements. Id. In fact, should the Town provide the fire flow-related mains to the Company
11 as a contribution in aid of construction, the utility's books would reflect that contribution as an
12 offset to the plant, and the Company would not have any additional rate base on which to earn
13 any return. Thus, there would be no benefit to the Company at all.

14 The evidence indicates that the Town⁵ was and is fully aware that it is not prohibited by
15 the law from funding fire flow improvements. In the Town's Water Committee meeting of May
16 3, 2005, the issue of payment regarding the emergency fire flow connection between the City
17 of Scottsdale and the Berneil⁶ Water Systems was discussed. A-31. The cost of the
18 connection had been quoted at \$46,175. R-13. The Town's attorney, Andrew Miller, stated
19 that there was "... no legal impediment to the Town paying the cost of installing the connection
20 because such expenditure is clearly for public safety purposes." A-31. Mr. Miller's statement
21 is consistent with what the Arizona Supreme Court said in the *City of Gila Bend* case. The

22
23 ⁵ Interestingly, the Town requested intervention in this matter in a letter to the Commission dated March 17, 2006.
See Town of Paradise Valley letter dated March 17, 2006 and filed in this docket on March 20, 2006. Transcript
at 6. The Town, however, did not appear at the hearing and was therefore not subject to cross-examination. Id.

24 ⁶ The Berneil Water Company is one of the three providers of water in the Town of Paradise Valley. The other
two providers are the City of Phoenix and the Company. Transcript at 450.

1 only difference between the Berneil improvements and the Company's improvements is the
2 magnitude of the cost which is irrelevant to the issue of who should pay. The Commission
3 should not burden ratepayers with higher rates – the Commission should let the Town fund,
4 through taxes, the discretionary plant it seeks.

5 Staff also believed the Town was legally impeded from paying for the discretionary
6 costs. Transcript at 538. Staff's witness, Steve Olea, testified on cross-examination that his
7 work with the Water Infrastructure and Finance Authority ("WIFA") was the "primary reason" he
8 relied on the Town's explanation that it could not fund the discretionary costs. Transcript at
9 538. Mr. Olea further testified regarding the Gift Clause that WIFA had to get "... some kind of
10 exemption around that state statute or county or city government couldn't gift anything to an
11 investor owned entity." Transcript at 544. Apparently, Mr. Olea understood that WIFA, but for
12 some exemption it received, would have been prohibited by the Gift Clause from loaning public
13 money to water utilities. The Commission should give little weight to Mr. Olea's testimony on
14 this matter, as he is not an attorney. Further, his understanding is misinformed, as the
15 prohibition against a public agency gifting public resources to a private entity originates in the
16 constitution, not a statute, and thus there is no way to get an exemption from it short of a
17 constitutional amendment. Further, Mr. Olea's understanding apparently overlooks the
18 Supreme Court's interpretation in *Walled Lake Door* that the provision of water to provide fire
19 protection is a public purpose for which public monies can legally be spent.

20 **5) THE COMPANY IS NOT REQUIRED BY THE TOWN'S FIRE ORDINANCE TO PAY**
21 **FOR THE COSTS OF THE DISCRETIONARY FIRE FLOW IMPROVEMENTS**

22 It has also been suggested that the Town's fire code places the cost burden of the fire
23 flow improvements on the Company because the Company must comply with the fire code.
24 Transcript at 117, 542. This narrow and restrictive interpretation of the Town Code is
misplaced, and inappropriately subordinates the Commission's powers.

1 The Town's Municipal Code adopts the International Fire Code, 2003 Edition as the Fire
2 Code for the Town of Paradise Valley. Town Code, Section 13-1-10. Among other things, the
3 International Fire Code provides for minimum fire flow requirements for one and two family
4 dwellings with fire flow calculation areas which do not exceed 3,600 feet to be 1,000 gallons
5 per minute. International Fire Code, 2003 Edition, Appendix B, Section B105. In addition,
6 Section 13-1-13 (A) of the Town Code provides: "The minimum fire flow from all hydrants in the
7 Town will be 1,500 gallons per minute (5,678.1 liters per minute)." S-11. The suggestion that
8 the Town Code burdens the Company with the cost⁷ is misplaced. The Town Code does not
9 impose the fire flow obligation on any particular entity. The International Fire Code's
10 obligations regarding fire flows are imposed on builders of new construction. See Section's
11 102, 105 and B105 of the International Fire Code (relevant excerpts are attached hereto as
12 Exhibit One). To the extent the Town has established a higher fire flow standard, but has not
13 indicated that the obligation to meet that standard falls on any particular entity, the Town
14 Code's obligation should similarly be imposed on those undertaking new construction within
15 the Town limits. Thus, on its face the Town Code does not impose a burden for fire flow on the
16 Company.

17 Additionally, interpreting the Code to obligate the Company to meet a fire flow standard
18 would be constitutionally suspect. Such an interpretation would cause the Town to be
19 impermissibly regulating a utility, imposing on this Commission's exclusive domain. This
20 Commission's rate making authority is its exclusive prerogative, and the courts have been
21 careful to protect the Commission's authority over rate making from infringements by other
22

23
24 ⁷ The argument appears to be that since the Company must comply with the Town Code, ratepayers should
reimburse the Company for costs that it is forced to incur.

1 branches. *Tucson Gas*, 15 Ariz. at 299-301; *Ethington v. Wright*, 66 Ariz. 382, 189 P.2d 209
2 (1948); *State ex rel Corbin v. Arizona Corp. Comm'n*, 174 Ariz. 216, 848 P.2d 301 (App. 1992).

3 The Town Code, on its face, does not conflict with the Commission's rate making
4 authority. The reason it does not conflict is that it does not require the regulated utility to pay
5 the costs of meeting the Town's standard. However, an interpretation of the Town Code as
6 requiring the utility to fund increased fire flow plant would impinge⁸ on the Commission's
7 exclusive ratemaking authority, and thus this interpretation should be avoided. See for
8 example, *Fragaso v. Fell*, 210 Ariz. 427, 431 – 432, 111 P.3d 1027, 1031 – 1032 (App.
9 2005)(We endeavor to harmonize statutes and court rules with the Arizona Constitution,
10 avoiding any unconstitutional construction.)

11 **RELIEF REQUESTED:** The Company accepted Staff's recommendation to include in
12 ratebase the Jackrabbit/Invergordon discretionary fire flow improvements completed in
13 October of 2005⁹. A-15 at 20, Executive Summary. In addition, the Company is requesting
14 rate base treatment for additional work orders that have been completed since the Company's
15 filing. S-2 at 4. These improvements include work along Nauni Valley Drive (\$420,755) and
16 additional work on the Jackrabbit/Invergordan mains (\$105,164). Id. The Company is
17 requesting ratebase treatment for the deferred depreciation and post-in-service AFUDC related
18 to the Jackrabbit/Invergordon and Nauni improvements¹⁰. A-15 at 21 - 22.

22 ⁸ The Town, through its Code, should not impose obligations on utilities which have the effect of increasing rates.
23 Interpreting the Town Code to impose such obligations and effectually raise rates impairs the Commission's
24 exclusive and absolute power to set rates as set forth in Article 15, Section 3 of the Constitution.

⁹ Staff's recommendation includes \$3,018,867 in ratebase for these improvements. Dorf surrebuttal at 3.

¹⁰ The Commission authorized deferral of the depreciation expense and post-in-Service AFUDC related to the fire
flow improvements in Decision No. 68303 dated November 14, 2005. Decision No. 68303 at page 4.

1 RUCO opposes the inclusion of any of the discretionary improvements in the
2 Company's ratebase and requests the Commission omit from ratebase the following items
3 related to fire flow plant:

- 4 1) Jackrabbit/Invergordon improvements - \$3,018,867 Post – Hearing Schedule 3,
5 page 1.
- 6 2) Deferred depreciation and post-in-service AFUDC related to the
7 Jackrabbit/Invergordon and Nauni improvements - \$168,590 – A-15 at 21.
- 8 3) Additional work orders - Nauni Valley Drive - (\$420,755)
- 9 4) Additional work orders - Jackrabbit/Invergordan mains - (\$105,164).

10
11 **REMAINING ISSUES**

12 **1) GAIN ON SALE OF LAND**

13 The Company sold its former operations/customer center on Casa Blanca Drive for
14 \$900,000 in 2004. A-19 at 35-36. The Company's net after tax gain on the sale was
15 \$481,680.84. Id. The Company proposed sharing the gain 50-50 with ratepayers. Id. RUCO
16 accepts the Company's proposed sharing as well as the Company's and Staff's
17 recommendation to amortize the credit over three years. Transcript at 334. RUCO opposes
18 the Company's proposed distribution of the gain to ratepayers.

19 Rather than adjust its ratebase to reflect the credit, the Company proposes a surcredit
20 on each of its customer's monthly statements. Id. In this manner, the Company enjoys the
21 benefit of the ratepayer's money cost free until the gain is fully disbursed. Id. Ratepayers
22 receive no interest or other compensation for the delay in receiving their funds. Id. This is
23 unfair to ratepayers and the Commission should reject the Company's proposed distribution of
24 the gain.

1 **RELIEF REQUESTED:** In an effort to be fair, RUCO recommends that the rate base
2 be offset by the ratepayer's portion of the gain. Id. RUCO's recommended revenue
3 requirement would then reflect the appropriate level of return on shareholder equity through
4 the recognition of the unpaid portion of the gain. Id. RUCO further recommends that the
5 annual distribution of the gain be recorded on the income statement as a credit to operating
6 expense. Id. Ratepayers would then only be subject to that burden associated with each
7 year's distribution. Id.

8 Ratepayers should be entitled to the time value of their money. RUCO's proposal is a
9 smart, equitable and fair method to assure ratepayers are appropriately compensated for the
10 time value of their money. The Commission should adopt RUCO's recommended method for
11 the distribution of the sale.

12
13 **2) RATE CASE EXPENSE**

14 The Company's proposed updated rate case expense is \$301,832. Company Post-
15 Hearing Schedule 5, page 4. RUCO recommends \$73,179. R-5 at 11. The Company's
16 recommended rate case expense is excessive and should be rejected.

17 The Commission typically looks at a variety of factors when considering rate case
18 expense. Those factors include the complexity of the proceeding, the number of systems
19 involved and a comparison of other cases. See for example Decision No. 67093 (Arizona-
20 American's Sun City et al. rate case), Decision No. 66849 (Arizona Water Company). In
21 addition, the Commission has recognized the need for companies to mitigate costs associated
22 with retaining outside consultants. Decision No. 67093 at 20.

23 The Company has failed to mitigate the expenses associated with retaining outside
24 consultants. Of the \$301,832 requested rate case expense, \$158,267 is related to the

1 Company's proposed Cost of Capital. The Company retained the services of the Brattle
2 Group, a consulting firm with various offices located throughout the country and in London, to
3 analyze and provide testimony regarding Cost of Capital. A-10 at 3. Two witnesses appeared
4 and filed testimony on behalf of the Brattle Group, Lawrence Kolbe and Michael Vilbert, both of
5 whom are based in Cambridge, Massachusetts. A-10 at 3, Transcript at 199. The financial
6 theory regarding Cost of Capital presented by these witnesses is novel to this Commission and
7 has been accepted in only one state in this country¹¹. Transcript at 222-223. RUCO is not
8 suggesting that the Company should be denied the opportunity to present its argument, no
9 matter how novel, unique or unorthodox it may be. RUCO believes, however, that ratepayers
10 should not be charged for the Company's choice to incur the extra expense necessary to
11 present unorthodox¹² arguments.

12 The Company's argument that ratepayers should bear the entire expense associated
13 with arguing the Company's Cost of Capital case on the theory that only ratepayers benefit by
14 the Company's argument is absurd. A-17 at 2. The Company originally sought recovery for
15 only 50% of its Cost of Capital expense (\$79,383) on the theory that these services benefited
16 both the Company's investors and ratepayers. A-22 at 3. Recently, the Company has
17 advanced the astounding notion that the Company's Cost of Capital arguments only benefit
18 ratepayers. A-17 at 2. According to Arizona American's employee, Thomas Broderick,
19 ratepayers should pay for all of the Company's rate case expense regarding Cost of Capital
20 since it supports its customer's health with new arsenic removal facilities and improves safety
21

22 ¹¹ According to Dr. Kolbe his financial theories have been adopted in Missouri but not in the "rest of the states."
Transcript at 223, A-11 at 30.

23 ¹² RUCO also maintains that the Company is requesting extraordinary rate consideration concerning the fire flow
improvements and ratepayers should not pay for the Company's rate case expense to put forth that argument.
24 RUCO made a similar recommendation regarding the revenue requirement in the Company's Sun City case.
Decision No. 67093 at 18-19.

1 with improved fire flows. A-17 at 2. However, the Cost of Capital issue concerns what is an
2 appropriate return on the Company's investment. The fire flow and arsenic issues concern
3 what costs should be considered in rate base. Cost of Capital is a separate and unrelated
4 issue from fire flow and arsenic. What the Company is really trying to argue here is that its
5 customers benefit from the Company's use of novel financial theories which, not coincidentally,
6 result in higher Cost of Capital estimates than what either Staff or RUCO recommend. This
7 argument is absurd. The Company's original attempt to mitigate its costs was made in good
8 faith. The Company's subsequent decision to change its original recommendation and attempt
9 to pass on to ratepayers the full burden of the costs associated with arguing its novel financial
10 theories was not reasonable and shows a refusal on the Company's part to mitigate its costs.

11 There are also other elements of the Company's rate case expenses that are not
12 reasonable. The Company is requesting rate case expense of \$42,677 for its rate design and
13 cost of service analysis and testimony. A-17, Exhibit TMB-1. The Company's proposed rate
14 design did not change from its existing rate design and the Company accepted Staff's High
15 Block Usage Charges. Next the Company expended \$6,500¹³ in "witness training." While it is
16 unclear exactly what the witnesses were trained for, this amount is excessive since all the
17 individuals that testified on behalf of the Company are seasoned veterans of the witness chair.

18 This case involves one district. The issues are not complex. The parties agree on the
19 Arsenic Cost Recovery Mechanism. The issue of fire flow has become a big issue because
20 the Company has chosen to ratebase what it considers a discretionary expense. This
21 treatment is not historically how the Commission has treated discretionary expenses. This
22 treatment, while contentious, does not make this a "complex" case. Nor does RUCO's position

23
24 ¹³ The Company's revised request is for \$3,250

1 on the ACRM make this matter contentious. A-17 at 6. RUCO does not oppose the proposed
2 ACRM. RUCO is just alerting the Commission that there will be some issues that need to be
3 resolved before the first step of the ACRM can be put into place. Transcript at 473.
4 Moreover, there was nothing extraordinary in the way this case was prosecuted or defended.
5 There was not an abnormal amount of investigation or discovery. The hearing lasted two full
6 days. In sum, this case was typical, by comparison to other rate cases.

7 The Company makes the comparison to the Chaparral City case which allowed rate
8 case expense of \$285,000. The two cases are not comparable. There were numerous
9 complex issues in the Chaparral case. Among them were heavily contested savings vs. cost
10 disputes regarding post test year plant, and a highly contentious dispute over the
11 Commission's methodology for determining rate base and revenue requirement.¹⁴ See
12 Decision No. 68176.

13 **RELIEF REQUESTED:** RUCO considered the complexity of this case, and the
14 nature of the Company's request, and reviewed how rate case expense has been treated in
15 other cases before the Commission. R-5 at 10. RUCO took the Company's last allowed rate
16 case expense¹⁵ for this district and trued-it up to today's value based on increases in the
17 consumer price index. Id. RUCO's recommended rate case expense of \$73,179 is
18 appropriate in this case.

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23 ¹⁴ Chaparral is presently appealing this case. See Chaparral City Water Company v. ACC, 1CA-CC 05-002.

24 ¹⁵ The Company and Staff concurred on rate case expense of \$60,000 in the Company's 1999 rate case. See Direct Testimony of Darron Carlson at page 4 and 10 and surrebuttal testimony of Darron Carlson at page 3, Schedule DWC-4, and page 2 in Docket No. W-01303A-98-0507, R-5 at 11.

1 **3) PENSION EXPENSE, NORMALIZE PAYROLL AND PAYROLL TAXES**

2 RUCO and the Company disagree on the treatment of labor hours associated with the
3 arsenic removal project. The Company is proposing to embed in operation and maintenance
4 expenses the annual labor cost of an arsenic plant operator the Company hired in October
5 2004¹⁶. R-6 at 7-8. The amount involved, \$41,603, is an expense that should be omitted
6 from the rates established in this proceeding, and should instead be considered when the
7 Company files for its arsenic step increase. RUCO's Post Hearing Schedule, RLM-4, page 1,
8 line 28. There are other expenses associated with the annual labor cost being requested by
9 the Company, totaling \$6,500,¹⁷ which should also be considered in the step increase phase of
10 this proceeding.

11 Finally, RUCO revised the Company's test-year labor costs to exclude additional labor
12 costs. The decrease in labor costs results in a corresponding decrease in pension costs of
13 \$2,205. R-6 at 6.

14 **RELIEF REQUESTED:** At this time, there is no arsenic treatment plant, and therefore
15 the Company should not be allowed to expense any costs associated with arsenic treatment.
16 The Commission should reject the Company's request to include expenses associated with
17 arsenic plant at this time which include Payroll – (\$41,603) and Payroll Tax – (\$4,295). RUCO
18 also recommends the Commission adopt its corresponding adjustment to decrease pension
19 expense by \$2,205.

20 **4) ADMINISTRATIVE AND GENERAL ALLOCATED COSTS**

21 RUCO's adjustments to this account focus on three areas.

22 _____
23 ¹⁶ The Company is making this recommendation despite its declaration that the ACRM is based solely on actual
costs **after** the new arsenic facilities are in place. A-19 at 15.

24 ¹⁷ Those expenses include Pension -\$2,205 and Payroll Tax -\$4,295. RUCO's Post Hearing Schedule, RLM – 4,
page 1.

- 1) Arizona Corporate allocated management fees;
- 2) Central Division Corporate District allocated miscellaneous expenses;
- 3) Arizona Corporate allocated miscellaneous expenses.

The first area in dispute, Arizona Corporate allocated management fees, totals \$62,478 and consists of three separate journal entries;

- A. American Water Incentive Plan ("AIP") (\$18,517);
- B. Performance Pay, Stay Bonus (\$1,520);
- C. Other Reorganization/Downsizing and non-incentive pay expenses (\$42,441).

The AIP is an employee incentive pay plan which the Company acknowledges is 70% tied into operational and individual components and 30% tied into the financial component. A-2 at 16. RUCO takes issue with the request by the Company to include the financial component. Stockholders, not ratepayers, are the sole beneficiaries of the additional profit the Company achieves as the result of the Company achieving its financial targets. The additional profits flow to shareholders in the form of dividends and retained earnings. Transcript at 342. Accordingly, RUCO disallowed 30% or \$5,555 of the total AIP expense.

In response, the Company highlights the current situation facing Arizona Public Service Company ("APS"). Transcript at 349-350. The Company argues that ratepayers benefit by a financially healthy company. Id. The comparison, however, is extreme and not equivalent. APS was recently before the Commission claiming it needed an emergency rate increase or its credit rating will be downgraded to junk status. Arizona American is a financially healthy Company seeking a rate increase, for the most part, to pass on the costs of fire flow improvements and arsenic treatment. The Company's credit rating is not at issue or in danger. Moreover, the connection between the Company's and APS' alleged financial status and

1 employee incentive plans is at best tenuous, and has not been shown in the record. This
2 argument is a red herring and should be disregarded by the Commission.

3 The remaining portion of the AIP¹⁸, the operational and individual components, benefits
4 both the ratepayers and the shareholders. Likewise, the second journal entry, performance
5 pay and stay bonus benefit both ratepayers and shareholders. R-6 at 20-21. RUCO agrees
6 that increased customer satisfaction and the retention of good employees benefit both the
7 ratepayer and the shareholder. It is not appropriate to burden either the shareholder or the
8 ratepayer with 100% of the costs. Therefore, RUCO recommends that both the ratepayer and
9 shareholder should pay for the remaining portion of the AIP, performance pay and bonus
10 benefits equally.

11 The last component of the corporate management fees concerns the other
12 reorganization, downsizing and non-incentive pay expenses. These expenses are non-
13 recurring and atypical of test-year expenses. R-6 at 21. The Commission should disallow the
14 other reorganization, downsizing and non-incentive pay expenses.

15 A second area in dispute concerns the Central Division Corporate district allocated
16 miscellaneous expenses, The Company and RUCO are in dispute on one item in this account.
17 The Company is requesting \$161 for the annual cost of ice. Transcript at 347, RUCO's Post-
18 Hearing Schedules, RLM-4 at page 3. This item has been given a great amount of attention in
19 this matter given the small amount at issue. RUCO's concern is not the money, but the
20 principle. RUCO recommends the Commission disallow this expense as it is discretionary.
21 Given escalating utility costs, the Commission should not burden the ratepayers with costs that
22

23 ¹⁸ \$12,962 (\$18,517 - \$5,555)
24

are not necessary. The cost of food and perishables such as liquor, bottled water, ice, sodas and bagels should not be at the expense of ratepayers. R-6 at 23.

The adjustments that remain in issue in the third area of dispute, Arizona Corporate allocated miscellaneous expenses also involve relatively small amounts. RUCO has rejected Indoor Plant Maintenance (\$547) and Security Renovations and Remodeling (\$1,023). R-6 at 24. The indoor plant maintenance, like ice, is not a necessary expense in the provisioning of water service. R-6 at 25. The security renovations and remodeling are nonrecurring and not typical historical test-year expenses. Id. at 25. The Commission should reject the indoor plant maintenance and security renovation expense.

RELIEF REQUESTED; RUCO recommends the following reductions to the administrative and general allocated costs:

1. AIP and Performance Pay, Stay Bonus	\$12,795 ¹⁹
Other Reorganization/Downsizing and non-incentive pay expenses	\$42,441
2. Ice Expense	\$161
3. Indoor Plant Maintenance and Security Renovations and Repairs	\$127

Transcript at 347, RUCO's Post-Hearing Schedules, RLM-4 at page 3.

¹⁹ $\$12,962 + \$1,520 = \$14,482/2 = \$7,241 + \$5,555$ (30% AIP) = \$12,795. R-6 at 20, 21 and 26, RUCO's Post-Hearing Schedules, RLM-4 at page 3.

1 **5) PROPERTY TAXES**

2 There are two property tax issues in dispute. The first issue concerns the property tax
3 associate with the Miller Road Treatment Facility ("MRTF"). RUCO has reduced the
4 Company's property taxes by \$42,000²⁰ to remove that portion of the property taxes that are
5 attributable to the MRTF. R-5 at 21. The Company's books and records show a property tax
6 accrual of \$56,844. R-5 at 21, R-6 at 15. This is the only expense the Company failed to
7 include in its adjustments to remove the expenses associated with the MRTF. Id. The
8 Company claims that it accounted for the reduction in property taxes associated with the
9 MRTF through its property tax calculation which utilized the methodology approved by the
10 Commission and adopted by Staff and the Company. A-15 at 38. The Company's calculation
11 yields an estimate of about \$14,000 for the MRTF taxes. Id. at 39. The Company's estimate
12 substantially understates the test year recorded MRTF property taxes, and should be rejected.

13 The Company also argues that Motorola has disputed that property tax is an "operating
14 expense" as provided for in the agreement it has with the Company, and as a result has never
15 reimbursed the Company for the MRTF property taxes. Id. This argument has no merit.
16 Property taxes are a part of the cost of operating the MRTF. Motorola's refusal to pay the
17 legitimate costs of operating the MRTF should not result in ratepayers having to fund those
18 costs, as the Company argues. The Company needs to seek redress through the agreement's
19 dispute provisions and not through rates.

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23
24 ²⁰ The Company's test year Motorola property taxes are calculated at approximately \$14,000. R-6 at 15. The
actual test year Motorola property tax was \$56,000. The difference, \$42,000 adjusts for the error. Id.

1 The second property tax issue concerns the use of the Arizona Department of
2 Revenue's ("ADOR") formula in the calculation of its property taxes. The evidence continues
3 to show, despite the Commission's failure to recognize it, that the use of the ADOR formula to
4 estimate property taxes is a much more accurate estimate of actual property tax than the
5 methodology that the Company proposes and the Commission has historically adopted. This
6 case is no exception. R-5 at 22. RUCO's recommended property tax expense calculation was
7 based on the ADOR property tax formula. Id. The property tax formula, as prescribed in
8 ADOR's memo dated January 3, 2001, values water utilities, for property tax purposes by
9 multiplying the average of the water utility's three previous years of reported gross revenues by
10 a factor of two. Id. at 23.

11 The Company has disregarded the revenues required under the ADOR directive and
12 substituted in its place the adjusted test-year revenues twice and its proposed level of
13 revenues once ("Company methodology"). Id. RUCO, for valuation purposes, has included the
14 test year (2004) and the prior two years (2002, 2003) as directed by ADOR ("ADOR
15 methodology"). Since the ADOR issued its memo, enough time has passed so that actual
16 property tax figures for 2005 are available and the Commission can compare those figures to
17 the estimated figures derived using the Company's and the ADOR methodologies. Paradise
18 Valley Water Company's actual 2005 test-year property taxes were \$162,193²¹. Id. Using the
19 ADOR methodology, RUCO's estimated 2005 property tax assessment is \$170,334, a
20 difference from the actual expense of \$8,141. Id. However, using the Company's methodology
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22

23
24 ²¹ Excluding MRTF.

1 results in an estimate of \$214,895, a difference of \$52,702 from the actual expense. Id. This
2 evidence clearly demonstrates that ADOR's method more closely approximates the
3 Company's actual post-test year property tax bill than does the Company and Staff
4 methodology. The Commission should adopt RUCO's approach and recognize the ADOR
5 methodology as the best measure of actual property tax expense.

6 The Company relies on previous Commission Decisions which conclude that RUCO's
7 methodology, and hence the ADOR methodology, unreasonably understates property tax
8 expense. A-15 at 40. With all due respect, the evidence has shown and continues to show, as
9 in this case, that the ADOR methodology is the most accurate. In this case, had the
10 Commission previously approved the Company's methodology, property taxes for 2005 would
11 have been overstated by \$51,048 which would have allowed the Company to over earn for
12 several years until that level of tax was actually assessed. Id. at 24. The Commission should
13 adopt the ADOR methodology.

14 **RELIEF REQUESTED:** RUCO recommends the Commission adopt its net
15 adjustment to property tax expense of (\$44,561) which results in a proper accounting for the
16 MRTF property taxes and utilizes the ADOR formula to compute the taxes. R-6 at 17, RUCO
17 Post Hearing Schedules, RLM -4, p. 2.

18 19 **6) WORKING CAPITAL**

20 A company's working capital requirement represents the amount of cash the company
21 must have on hand to cover any differences in the time period between when revenues are
22 received and expenses must be paid. R-7 at 9. The most accurate way to measure the working
23 capital requirement is via a lead/lag study. Id. The lead/lag study measures the actual lead and
24 lag days attributable to the individual revenues and expenses. Id.

1 The Company originally computed its cash working capital requirement from a lead/lag
2 study that it performed. Based on its lead/lag study, the Company originally requested working
3 capital in the amount of \$350,946. Id. RUCO spent a considerable amount of time analyzing
4 and reviewing the Company's original lead/lag study. R-8 at 13. Other than the adjustments
5 and reconciliation inaccuracies that RUCO made and pointed out²², RUCO believes that the
6 original study was reasonable and should not have been changed. Id.

7 The Company, in its rebuttal testimony, agreed with some of RUCO's adjustments and
8 proposed a revised cash working capital lead/lag study. A-15 at 16. The Company's revised
9 cash working capital request was \$115,182. Id. at 19. For the most part, RUCO agreed with
10 the Company's revised lead/lag study with the following exceptions. The Company added
11 back into its lead/lag two non-cash working capital items – return on equity and depreciation
12 and amortization expense. A-15 at 18. The Company also added in a new line item entitled
13 "Management Fees." Id. By excluding these items from the revised lead/lag study, RUCO's
14 recommendation for cash working capital was, and still is (\$229,565). RUCO recommends
15 (\$221,791) for total working capital. R-8 at 15.

16 The reason for the great disparity between RUCO and the Company's rebuttal working
17 capital recommendations is the Company's choice to include non-cash items. The
18 Commission's position on including non-cash items in working capital calculations is well
19 settled – the Commission does not allow it. In a previous rate case, the Commission
20 disallowed the Company's request to include depreciation and amortization expense in its
21 calculation of cash working capital. (Decision No. 59079, dated May 5, 1995) The
22 Commission stated:

23 _____

24 ²² RUCO's original recommended working capital allowance was (\$231,837). R-7 at 9.

1 As we have stated in numerous other decisions, the calculation is for
2 "cash working capital" and not "cash and non-cash working capital".

3 Decision No. 59079 at 7 (emphasis added).

4 Perhaps sensing that its working capital recommendation was also ill-fated, the
5 Company changed its position for a second time at the hearing. Transcript at 67. The
6 Company joined in Staff's position recommending a zero working capital allowance. Id. Staff
7 evaluated the Company's lead/lag study, determined that property taxes should have a
8 negative effect, not a positive one as the Company determined on its working capital
9 requirements²³. S-1 at 6. Staff made its recommendation despite noting that most
10 sophisticated companies, like the subject Company, have "negative" working capital
11 requirements. Id. Staff cites to nothing that distinguishes the Company from most other
12 sophisticated utilities. The Commission should reject the joint recommendation of the
13 Company and Staff.

14 Staff's recommendation appears to have no in-depth data-based connection to this
15 Company's actual working capital needs. A detailed review of the Company's lead/lag study
16 taking into account only cash items results in a negative working capital requirement which, as
17 Staff concludes, is normally the case for utilities like the Company. The Commission should
18 rely on the hard data provided in the lead/lag study to measure the Company's working capital
19 requirements. RUCO's recommended cash working capital adjusts the Company's lead/lag
20 study to include only those items the Commission has allowed in the past.

21 **RELIEF REQUESTED:** The Commission should approve RUCO's recommendation
22 of (\$61,432) for cash working capital and (\$129,155) for total working capital. R-8 at 15.

23
24 ²³ Staff noted that "other errors" also played a role in its recommendation. S-1 at 6.

1 **7) COST OF CAPITAL**

2 RUCO believes the Commission should adopt RUCO's recommended rate of return of
3 7.10 percent, which is the weighted cost of RUCO's recommended costs of debt and equity
4 capital. R-10 at 4.

5 RUCO believes that the 10.00 percent cost of common equity is appropriate given the
6 current environment of low inflation and low interest rates that the Company is operating in. R-
7 9 AT 47. RUCO further believes that the 10 percent cost of common equity estimated by
8 RUCO witness William A. Rigsby is very reasonable when the Company's capital structure of
9 37 percent equity and 63 percent debt is compared with the capital structures of other publicly
10 traded water providers which averaged 49.9 percent equity and 50.1 percent debt. Id at 48. Mr.
11 Rigsby's belief that the Company is subject to greater financial risk compared to the other
12 utilities considered in his Cost of Capital analysis is validated by the greater debt in the
13 Company's capital structure compared to the sample. Id. Publicly traded companies with a
14 level of debt similar to the Company's would be perceived as riskier than the average of the
15 sample and would therefore have a higher expected rate of return on common equity. Id. at
16 49. In order to account for this added risk it is customary in the regulatory practice to make an
17 upward adjustment to the Company's cost of equity. In this case, Mr. Rigsby's added 50 basis
18 points to the results of his DCF and CAPM analysis. Id. Mr. Rigsby simply considered the
19 adjustment the Commission authorized in the Company's most recent rate case to arrive at his
20 recommendation. R-10 at 7.

21 All things considered, Mr. Rigsby's adjustment is just ten points lower than Staff's 60
22 basis point adjustment. Id. The Commission, in the recent Southwest Gas application,
23
24

1 awarded that leveraged gas provider with a 9.50 percent return on common equity²⁴. Id. The
2 Company, on the other hand, believes that its higher debt percentage, and consequently
3 higher risk, warrant a 12 percent cost of common equity. The Company, however, is
4 regulated, unlike other companies considered in its proxies, and can apply for rate relief when
5 the need arises. R-9 at 61. This makes it less risky than non-regulated companies which
6 need to seek bankruptcy relief when their debts become excessively burdensome. Id.
7 Moreover, the Commission's favorable position regarding many of the current costs water
8 utilities currently face (arsenic treatment, deferred CAP costs etc.) provides for a favorable
9 regulatory environment in Arizona which eliminates the need for returns as high as the
10 Company is recommending. Id. at page 62-63. The Commission should reject the Company's
11 proposed 12% percent cost of equity and 7.80% weighted average Cost of Capital.

12 **RELIEF REQUESTED:** RUCO recommends the Commission adopt its
13 recommended cost of equity of 10% and weighted average Cost of Capital of 7.10%. R-10 at
14 3-4. The Company's proposed cost of equity of 12% is unreasonably high and not warranted
15 under the circumstance. Likewise the Company's weighted average Cost of Capital
16 recommendation of 7.80% should also be rejected. Id.

17
18 **8) INCOME TAX EXPENSE**

19 RUCO's adjustment to income tax expense is made to reflect income tax expenses
20 calculated on RUCO's recommended revenues and expenses.
21
22

23
24 ²⁴ Southwest Gas has similar risk characteristics to water providers and had slightly less common equity than the Company. Id.

1 **RELIEF REQUESTED:** RUCO's recommends the Commission adopt its
2 adjustment to income tax expense which decreases test year expenses by (\$21,154). R-6
3 at 27.
4

5 **9) PLANT HELD FOR FUTURE USE ("PHFFU")**

6 Both RUCO and Staff recommend the Commission disallow PHFFU. R-7 at 4. It is not
7 sound regulatory policy or consistent with accounting ratemaking standards to allow in rate
8 base plant that is not used and useful. Id. at 6. PHFFU is not used and useful in serving
9 current ratepayers and should be disallowed²⁵.

10 **RELIEF REQUESTED:** RUCO's recommends the Commission adopt its adjustment
11 to disallow PHFFU in the amount of \$7,825 from ratebase. RUCO's Post-Hearing Schedule,
12 TJC-2.
13

14 **10) RATE DESIGN**

15 RUCO recommends that the Commission adopt its three tiered inverted rate design
16 which mirrors the Company's proposed rate design with one exception - RUCO's analysis
17 requires a rate decrease. R-8 at 15. RUCO's rate design encourages conservation and
18 maintains the same ratio between the Company's present monthly minimum and commodity
19 charges. R-7 at 22.
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21
22

23 ²⁵ In the hearing, Mr. Coley agreed that a backup pump at Well 16 was in fact being used (to service the well
24 when its main motor failed) and should not have been included in his PHFFU adjustment. Accordingly, RUCO's
final recommendation excludes the costs associated with that pump from its adjustment. Transcript at 368 – 369,
A-15 at 7.

1 **RELIEF REQUESTED:** RUCO recommends the Commission adopt its rate design
2 as shown on Schedules TJC-6, pages 1-9 of RUCO Exhibit R-7.

3
4 **CONCLUSION**

5 RUCO recommends that the Commission reject the Company's proposal to ratebase
6 discretionary fire flow projects. It would be bad public policy for the Commission to approve for
7 ratebase treatment expenditures that are discretionary. The Commission has not set fire flow
8 standards in the Town of Paradise Valley. Moreover, the Town is not impeded legally from
9 paying the costs of the discretionary improvements and the Town, not the Company, should
10 raise the funds necessary to pay for the improvements.

11 With regard to the gain on the sale of the plant located on Casa Blanca Drive, RUCO
12 recommends that the Company's rate base be offset by the ratepayer's portion of the gain.
13 RUCO further recommends that the annual distribution of the gain be recorded on the income
14 statement as a credit to operating expense. RUCO recommends the Commission adopt its
15 remaining recommendations to the following:

- 16 1) Rate case expense - \$73,179;
- 17 2) Pension Expense, Normalized Payroll and Normalized Payroll Expense – Reject
18 the Company's request to include expenses associated with arsenic recovery
19 which include the following;
- 20 a) Payroll –(\$41,603)
- 21 b) Payroll Tax –(\$4,295)
- 22 c) Pension expense –(\$2,205)
- 23
- 24

1 COPIES of the foregoing hand delivered/
2 mailed this 5th day of May, 2006 to:

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24

EXHIBIT ONE

A Member of the International Code Family™



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PREFACE

Introduction

Internationally, code officials recognize the need for a modern, up-to-date fire code addressing conditions hazardous to life and property from fire, explosion, handling or use of hazardous materials and the use and occupancy of buildings and premises. The *International Fire Code*®, in this 2003 edition, is designed to meet these needs through model code regulations that safeguard the public health and safety in all communities, large and small.

This comprehensive fire code establishes minimum regulations for fire prevention and fire protection systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new system designs. This 2003 edition is fully compatible with all the *International Codes* ("I-Codes") published by the International Code Council (ICC), including the *International Building Code*, *ICC Electrical Code*, *International Energy Conservation Code*, *International Existing Building Code*, *International Fuel Gas Code*, *International Mechanical Code*, *ICC Performance Code*, *International Plumbing Code*, *International Private Sewage Disposal Code*, *International Property Maintenance Code*, *International Residential Code*, *International Urban-Wildland Interface Code* and *International Zoning Code*.

The *International Fire Code* provisions provide many benefits, among which is the model code development process that offers an international forum for fire safety professionals to discuss performance and prescriptive code requirements. This forum provides an excellent arena to debate proposed revisions. This model code also encourages international consistency in the application of provisions.

Development

The first edition of the *International Fire Code* (2000) was the culmination of an effort initiated in 1997 by a development committee appointed by ICC and consisting of representatives of the three statutory members of the International Code Council: Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO) and Southern Building Code Congress International (SBCCI). The intent was to draft a comprehensive set of fire safety regulations consistent with and inclusive of the scope of the existing model codes. Technical content of the latest model codes promulgated by BOCA, ICBO and SBCCI was utilized as the basis for the development, followed by public hearings in 1998 and 1999 to consider proposed changes. This 2003 edition presents the code as originally issued, with changes approved through the ICC Code Development Process through 2002. A new edition such as this is promulgated every three years.

With the development and publication of the family of *International Codes* in 2000, the continued development and maintenance of the model codes individually promulgated by BOCA ("BOCA National Codes"), ICBO ("Uniform Codes") and SBCCI ("Standard Codes") was discontinued. This 2003 *International Fire Code*, as well as its predecessor—the 2000 edition, is intended to be the successor fire code to those codes previously developed by BOCA, ICBO and SBCCI.

The development of a single set of comprehensive and coordinated family of *International Codes* was a significant milestone in the development of regulations for the built environment. The timing of this publication mirrors a milestone in the change in structure of the model codes, namely, the pending Consolidation of BOCA, ICBO and SBCCI into the ICC. The activities and services previously provided by the individual model code organizations will be the responsibility of the Consolidated ICC.

This code is founded on principles intended to establish provisions consistent with the scope of a fire code that adequately protects public health, safety and welfare; provisions that do not unnecessarily increase construction costs; provisions that do not restrict the use of new materials, products or methods of construction; and provisions that do not give preferential treatment to particular types or classes of materials, products or methods of construction.

Adoption

The *International Fire Code* is available for adoption and use by jurisdictions internationally. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference in accordance with proceedings establishing the jurisdiction's laws. At the time of adoption, jurisdictions should insert the appropriate information in provisions requiring specific local information, such as the name of the adopting jurisdiction. These locations are shown in bracketed words in small capital letters in the code and in the sample ordinance. The sample adoption ordinance on page v addresses several key elements of a code adoption ordinance, including the information required for insertion into the code text.

Maintenance

The *International Fire Code* is kept up to date through the review of proposed changes submitted by code enforcing officials, industry representatives, design professionals and other interested parties. Proposed changes are carefully considered through an open code development process in which all interested and affected parties may participate.

The contents of this work are subject to change both through the Code Development Cycles and the governmental body that enacts the code into law. For more information regarding the code development process, contact the Code and Standard Development Department of the International Code Council.

While the development procedure of the *International Fire Code* assures the highest degree of care, ICC and the founding members of ICC—BOCA, ICBO, SBCCI—their members and those participating in the development of this code do not accept any liability resulting from compliance or noncompliance with the provisions because ICC and its founding members do not have the power or authority to police or enforce compliance with the contents of this code. Only the governmental body that enacts the code into law has such authority.

Letter Designations in Front of Section Numbers

In each code development cycle, proposed changes to this code are considered at the Code Development Hearing by the International Fire Code Development Committee, whose action constitutes a recommendation to the voting membership for final action on the proposed change. Proposed changes to a code section whose number begins with a letter in brackets are considered by a different code development committee. For instance, proposed changes to code sections which have the letter [P] in front (e.g. [P] 912.5), are considered by the International Plumbing Code Development Committee at the Code Development Hearing. Where this designation is applicable to the entire content of a main section of the code, the designation appears at the main section number and title and is not repeated at every subsection in that section.

The content of sections in this code which begin with a letter designation are maintained by another code development committee in accordance with the following: [B]= International Building Code Development Committee; [EB] = International Existing Building Code Development Committee; [M] = International Mechanical Code Development Committee; [P] = International Plumbing Code Development Committee.

Marginal Markings

Solid vertical lines in the margins within the body of the code indicate a technical change from the requirements of the 2000 edition. Deletion indicators (➡) are provided in the margin where a paragraph or item has been deleted.

Chapter 10 user note: Chapter 10 of the code has been reorganized from the 2000 edition as a result of an approved code change proposal. This resulted in a renumbering of the chapter from nine sections to 27. The presentation of text predominantly follows that of the 2000 edition; however, the section numbers have been revised. Marginal markings are included at each section number but have not been included to reflect the subsection renumbering. A comprehensive 2000/2003 Chapter 10 section number cross index is posted in the ICC website at www.intlcode.org.

ORDINANCE

The *International Codes* are designed and promulgated to be adopted by reference by ordinance. Jurisdictions wishing to adopt the 2003 *International Fire Code* as an enforceable regulation governing regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises should ensure that certain factual information is included in the adopting ordinance at the time adoption is being considered by the appropriate governmental body. The following sample adoption ordinance addresses several key elements of a code adoption ordinance, including the information required for insertion into the code text.

SAMPLE ORDINANCE FOR ADOPTION OF THE *INTERNATIONAL FIRE CODE* ORDINANCE NO. _____

An ordinance of the [JURISDICTION] adopting the 2003 edition of the *International Fire Code*, regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises in the [JURISDICTION]; providing for the issuance of permits and collection of fees therefor; repealing Ordinance No. _____ of the [JURISDICTION] and all other ordinances and parts of the ordinances in conflict therewith.

The [GOVERNING BODY] of the [JURISDICTION] does ordain as follows:

Section 1. That a certain document, three (3) copies of which are on file in the office of the [TITLE OF JURISDICTION'S KEEPER OF RECORDS] of [NAME OF JURISDICTION], being marked and designated as the *International Fire Code*, 2003 edition, including Appendix Chapters [FILL IN THE APPENDIX CHAPTERS BEING ADOPTED] (see *International Fire Code* Section 101.2.1, 2003 edition), as published by the International Code Council, be and is hereby adopted as the Fire Code of the [JURISDICTION], in the State of [STATE NAME] regulating and governing the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises as herein provided; providing for the issuance of permits and collection of fees therefor; and each and all of the regulations, provisions, penalties, conditions and terms of said Fire Code on file in the office of the [JURISDICTION] are hereby referred to, adopted, and made a part hereof, as if fully set out in this ordinance, with the additions, insertions, deletions and changes, if any, prescribed in Section 2 of this ordinance.

Section 2. That the following sections are hereby revised:

Section 101.1 Insert: [NAME OF JURISDICTION]

Section 109.3. Insert: [OFFENSE, DOLLAR AMOUNT, NUMBER OF DAYS]

Section 111.4. Insert: [DOLLAR AMOUNT IN TWO LOCATIONS]

Section 3. That the geographic limits referred to in certain sections of the 2003 *International Fire Code* are hereby established as follows:

Section 3204.3.1.1 (geographic limits in which the storage of flammable cryogenic fluids in stationary containers is prohibited): [JURISDICTION TO SPECIFY]

Section 3404.2.9.5.1 (geographic limits in which the storage of Class I and Class II liquids in above-ground tanks outside of buildings is prohibited): [JURISDICTION TO SPECIFY]

Section 3406.2.4.4 (geographic limits in which the storage of Class I and Class II liquids in above-ground tanks is prohibited): [JURISDICTION TO SPECIFY]

Section 3804.2 (geographic limits in which the storage of liquefied petroleum gas is restricted for the protection of heavily populated or congested areas): [JURISDICTION TO SPECIFY]

Section 4. That Ordinance No. _____ of [JURISDICTION] entitled [FILL IN HERE THE COMPLETE TITLE OF THE ORDINANCE OR ORDINANCES IN EFFECT AT THE PRESENT TIME SO THAT THEY WILL BE REPEALED BY DEFINITE MENTION] and all other ordinances or parts of ordinances in conflict herewith are hereby repealed.

Section 5. That if any section, subsection, sentence, clause or phrase of this ordinance is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this ordinance. The [GOVERNING BODY] hereby declares that

it would have passed this ordinance, and each section, subsection, clause or phrase thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses and phrases be declared unconstitutional.

Section 6. That nothing in this ordinance or in the Fire Code hereby adopted shall be construed to affect any suit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 2 of this ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this ordinance.

Section 7. That the [JURISDICTION'S KEEPER OF RECORDS] is hereby ordered and directed to cause this ordinance to be published. (An additional provision may be required to direct the number of times the ordinance is to be published and to specify that it is to be in a newspaper in general circulation. Posting may also be required.)

Section 8. That this ordinance and the rules, regulations, provisions, requirements, orders and matters established and adopted hereby shall take effect and be in full force and effect [TIME PERIOD] from and after the date of its final passage and adoption.

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CHAPTER 1

ADMINISTRATION

SECTION 101 GENERAL

101.1 Title. These regulations shall be known as the *Fire Code* of [NAME OF JURISDICTION], hereinafter referred to as "this code."

101.2 Scope. This code establishes regulations affecting or relating to structures, processes, premises and safeguards regarding:

1. The hazard of fire and explosion arising from the storage, handling or use of structures, materials or devices;
2. Conditions hazardous to life, property or public welfare in the occupancy of structures or premises;
3. Fire hazards in the structure or on the premises from occupancy or operation;
4. Matters related to the construction, extension, repair, alteration or removal of fire suppression or alarm systems.

101.2.1 Appendices. Provisions in the appendices shall not apply unless specifically adopted.

101.3 Intent. The purpose of this code is to establish the minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises and to provide safety to fire fighters and emergency responders during emergency operations.

101.4 Severability. If a section, subsection, sentence, clause or phrase of this code is, for any reason, held to be unconstitutional, such decision shall not affect the validity of the remaining portions of this code.

101.5 Validity. In the event any part or provision of this code is held to be illegal or void, this shall not have the effect of making void or illegal any of the other parts or provisions hereof, which are determined to be legal; and it shall be presumed that this code would have been adopted without such illegal or invalid parts or provisions.

SECTION 102 APPLICABILITY

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

1. Structures, facilities and conditions arising after the adoption of this code.
2. Existing structures, facilities and conditions not legally in existence at the time of adoption of this code.
3. Existing structures, facilities and conditions when identified in specific sections of this code.

4. Existing structures, facilities and conditions which, in the opinion of the code official, constitute a distinct hazard to life or property.

102.2 Administrative, operational and maintenance provisions. The administrative, operational and maintenance provisions of this code shall apply to:

1. Conditions and operations arising after the adoption of this code.
2. Existing conditions and operations.

[EB] 102.3 Change of use or occupancy. The provisions of the *International Existing Building Code* shall apply to all buildings undergoing a change of occupancy.

102.4 Application of building code. The design and construction of new structures shall comply with the *International Building Code*. Repairs, alterations and additions to existing structures shall comply with the *International Existing Building Code*.

[EB] 102.5 Historic buildings. The construction, alteration, repair, enlargement, restoration, relocation or movement of existing buildings or structures that are designated as historic buildings when such buildings or structures do not constitute a distinct hazard to life or property shall be in accordance with the provisions of the *International Existing Building Code*.

102.6 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 45 and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

102.7 Subjects not regulated by this code. Where no applicable standards or requirements are set forth in this code, or are contained within other laws, codes, regulations, ordinances or bylaws adopted by the jurisdiction, compliance with applicable standards of the National Fire Protection Association or other nationally recognized fire safety standards, as approved, shall be deemed as prima facie evidence of compliance with the intent of this code. Nothing herein shall derogate from the authority of the fire code official to determine compliance with codes or standards for those activities or installations within the code official's jurisdiction or responsibility.

102.8 Matters not provided for. Requirements that are essential for the public safety of an existing or proposed activity, building or structure, or for the safety of the occupants thereof, which are not specifically provided for by this code shall be determined by the fire code official.

102.9 Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

SECTION 103 DEPARTMENT OF FIRE PREVENTION

103.1 General. The department of fire prevention is established within the jurisdiction under the direction of the fire code official. The function of the department shall be the implementation, administration and enforcement of the provisions of this code.

103.2 Appointment. The fire code official shall be appointed by the chief appointing authority of the jurisdiction; and the fire code official shall not be removed from office except for cause and after full opportunity to be heard on specific and relevant charges by and before the appointing authority.

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the fire code official shall have the authority to appoint a deputy fire code official, other related technical officers, inspectors and other employees.

103.4 Liability. The fire code official, officer or employee charged with the enforcement of this code, while acting for the jurisdiction, shall not thereby be rendered liable personally, and is hereby relieved from all personal liability for any damage accruing to persons or property as a result of an act required or permitted in the discharge of official duties.

103.4.1 Legal defense. Any suit instituted against any officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provisions of this code shall be defended by the legal representative of the jurisdiction until the final termination of the proceedings. The fire code official or any subordinate shall not be liable for costs in an action, suit or proceeding that is instituted in pursuance of the provisions of this code; and any officer of the department of fire prevention, acting in good faith and without malice, shall be free from liability for acts performed under any of its provisions or by reason of any act or omission in the performance of official duties in connection therewith.

SECTION 104 GENERAL AUTHORITY AND RESPONSIBILITIES

104.1 General. The fire code official is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purpose of this code and shall not have the effect of waiving requirements specifically provided for in this code.

104.2 Applications and permits. The fire code official is authorized to receive applications, review construction documents and issue permits for construction regulated by this code, issue permits for operations regulated by this code, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this code.

104.3 Right of entry. Whenever it is necessary to make an inspection to enforce the provisions of this code, or whenever the fire code official has reasonable cause to believe that there exists in a building or upon any premises any conditions or viola-

tions of this code which make the building or premises unsafe, dangerous or hazardous, the fire code official shall have the authority to enter the building or premises at all reasonable times to inspect or to perform the duties imposed upon the fire code official by this code. If such building or premises is occupied, the fire code official shall present credentials to the occupant and request entry. If such building or premises is unoccupied, the fire code official shall first make a reasonable effort to locate the owner or other person having charge or control of the building or premises and request entry. If entry is refused, the fire code official has recourse to every remedy provided by law to secure entry.

104.3.1 Warrant. When the fire code official has first obtained a proper inspection warrant or other remedy provided by law to secure entry, an owner or occupant or person having charge, care or control of the building or premises shall not fail or neglect, after proper request is made as herein provided, to permit entry therein by the fire code official for the purpose of inspection and examination pursuant to this code.

104.4 Identification. The fire code official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

104.5 Notices and orders. The fire code official is authorized to issue such notices or orders as are required to affect compliance with this code in accordance with Sections 109.1 and 109.2.

104.6 Official records. The fire code official shall keep official records as required by Sections 104.6.1 through 104.6.4. Such official records shall be retained for not less than five years or for as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.

104.6.1 Approvals. A record of approvals shall be maintained by the fire code official and shall be available for public inspection during business hours in accordance with applicable laws.

104.6.2 Inspections. The fire code official shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.

104.6.3 Fire records. The fire department shall keep a record of fires occurring within its jurisdiction and of facts concerning the same, including statistics as to the extent of such fires and the damage caused thereby, together with other information as required by the fire code official.

104.6.4 Administrative. Application for modification, alternative methods or materials and the final decision of the fire code official shall be in writing and shall be officially recorded in the permanent records of the fire code official.

104.7 Approved materials and equipment. All materials, equipment and devices approved by the fire code official shall be constructed and installed in accordance with such approval.

104.7.1 Material and equipment reuse. Materials, equipment and devices shall not be reused or reinstalled unless such elements have been reconditioned, tested and placed in good and proper working condition and approved.

104.7.2 Technical assistance. To determine the acceptability of technologies, processes, products, facilities, materials and uses attending the design, operation or use of a building or premises subject to inspection by the fire code official, the fire code official is authorized to require the owner or agent to provide, without charge to the jurisdiction, a technical opinion and report. The opinion and report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the fire code official and shall analyze the fire safety properties of the design, operation or use of the building or premises and the facilities and appurtenances situated thereon, to recommend necessary changes. The fire code official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.

104.8 Modifications. Whenever there are practical difficulties involved in carrying out the provisions of this code, the fire code official shall have the authority to grant modifications for individual cases, provided the fire code official shall first find that special individual reason makes the strict letter of this code impractical and the modification is in compliance with the intent and purpose of this code and that such modification does not lessen health, life and fire safety requirements. The details of action granting modifications shall be recorded and entered in the files of the department of fire prevention.

104.9 Alternative materials and methods. The provisions of this code are not intended to prevent the installation of any material or to prohibit any method of construction not specifically prescribed by this code, provided that any such alternative has been approved. The fire code official is authorized to approve an alternative material or method of construction where the fire code official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.

104.10 Fire investigations. The fire code official, the fire department or other responsible authority shall have the authority to investigate the cause, origin and circumstances of any fire, explosion or other hazardous condition. Information that could be related to trade secrets or processes shall not be made part of the public record except as directed by a court of law.

104.10.1 Assistance from other agencies. Police and other enforcement agencies shall have authority to render necessary assistance in the investigation of fires when requested to do so.

104.11 Authority at fires and other emergencies. The fire chief or officer of the fire department in charge at the scene of a fire or other emergency involving the protection of life or property or any part thereof, shall have the authority to direct such operation as necessary to extinguish or control any fire, perform any rescue operation, investigate the existence of suspected or reported fires, gas leaks or other hazardous conditions or situations, or take any other action necessary in the reasonable performance of duty. In the exercise of such power, the fire chief is authorized to prohibit any person, vehicle, vessel or thing from approaching the scene and is autho-

rized to remove, or cause to be removed or kept away from the scene, any vehicle, vessel or thing which could impede or interfere with the operations of the fire department and, in the judgment of the fire chief, any person not actually and usefully employed in the extinguishing of such fire or in the preservation of property in the vicinity thereof.

104.11.1 Barricades. The fire chief or officer of the fire department in charge at the scene of an emergency is authorized to place ropes, guards, barricades or other obstructions across any street, alley, place or private property in the vicinity of such operation so as to prevent accidents or interference with the lawful efforts of the fire department to manage and control the situation and to handle fire apparatus.

104.11.2 Obstructing operations. No person shall obstruct the operations of the fire department in connection with extinguishment or control of any fire, or actions relative to other emergencies, or disobey any lawful command of the fire chief or officer of the fire department in charge of the emergency, or any part thereof, or any lawful order of a police officer assisting the fire department.

104.11.3 Systems and devices. No person shall render a system or device inoperative during an emergency unless by direction of the fire chief or fire department official in charge of the incident.

SECTION 105 PERMITS

105.1 General. Permits shall be in accordance with Section 105.

105.1.1 Permits required. Permits required by this code shall be obtained from the fire code official. Permit fees, if any, shall be paid prior to issuance of the permit. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire code official.

105.1.2 Types of permits. There shall be two types of permits as follows:

1. Operational permit. An operational permit allows the applicant to conduct an operation or a business for which a permit is required by Section 105.6 for either:
 - 1.1. A prescribed period.
 - 1.2. Until renewed or revoked.
2. Construction permit. A construction permit allows the applicant to install or modify systems and equipment for which a permit is required by Section 105.7.

105.1.3 Permits for the same location. When more than one permit is required for the same location, the fire code official is authorized to consolidate such permits into a single permit provided that each provision is listed in the permit.

105.2 Application. Application for a permit required by this code shall be made to the fire code official in such form and detail as prescribed by the fire code official. Applications for permits shall be accompanied by such plans as prescribed by the fire code official.

105.2.1 Refusal to issue permit. If the application for a permit describes a use that does not conform to the requirements of this code and other pertinent laws and ordinances, the fire code official shall not issue a permit, but shall return the application to the applicant with the refusal to issue such permit. Such refusal shall, when requested, be in writing and shall contain the reasons for refusal.

105.2.2 Inspection authorized. Before a new operational permit is approved, the fire code official is authorized to inspect the receptacles, vehicles, buildings, devices, premises, storage spaces or areas to be used to determine compliance with this code or any operational constraints required.

105.2.3 Time limitation of application. An application for a permit for any proposed work or operation shall be deemed to have been abandoned six months after the date of filing, unless such application has been diligently prosecuted or a permit shall have been issued; except that the fire code official is authorized to grant one or more extensions of time for additional periods not exceeding 90 days each if there is reasonable cause.

105.2.4 Action on application. The fire code official shall examine or cause to be examined applications for permits and amendments thereto within a reasonable time after filing. If the application or the construction documents do not conform to the requirements of pertinent laws, the fire code official shall reject such application in writing, stating the reasons therefor. If the fire code official is satisfied that the proposed work or operation conforms to the requirements of this code and laws and ordinances applicable thereto, the fire code official shall issue a permit therefore as soon as practicable.

105.3 Conditions of a permit. A permit shall constitute permission to maintain, store or handle materials; or to conduct processes which produce conditions hazardous to life or property; or to install equipment utilized in connection with such activities; or to install or modify any fire protection system or equipment or any other construction, equipment installation or modification in accordance with the provisions of this code where a permit is required by Section 105.6 or 105.7. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code or other applicable regulations or laws of the jurisdiction.

105.3.1 Expiration. An operational permit shall remain in effect until reissued, renewed, or revoked or for such a period of time as specified in the permit. Construction permits shall automatically become invalid unless the work authorized by such permit is commenced within 180 days after its issuance, or if the work authorized by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. Before such work recommences, a new permit shall be first obtained and the fee to recommence work, if any, shall be one-half the amount required for a new permit for such work, provided no changes have been made or will be made in the original construction documents for such work, and provided further that such suspension or abandonment has not exceeded one year. Permits

are not transferable and any change in occupancy, operation, tenancy or ownership shall require that a new permit be issued.

105.3.2 Extensions. A permittee holding an unexpired permit shall have the right to apply for an extension of the time within which the permittee will commence work under that permit when work is unable to be commenced within the time required by this section for good and satisfactory reasons. The fire code official is authorized to grant, in writing, one or more extensions of the time period of a permit for periods of not more than 90 days each. Such extensions shall be requested by the permit holder in writing and justifiable cause demonstrated.

105.3.3 Occupancy prohibited before approval. The building or structure shall not be occupied prior to the fire code official issuing a permit that indicates that applicable provisions of this code have been met.

105.3.4 Conditional permits. Where permits are required and upon the request of a permit applicant, the fire code official is authorized to issue a conditional permit to occupy the premises or portion thereof before the entire work or operations on the premises is completed, provided that such portion or portions will be occupied safely prior to full completion or installation of equipment and operations without endangering life or public welfare. The fire code official shall notify the permit applicant in writing of any limitations or restrictions necessary to keep the permit area safe. The holder of a conditional permit shall proceed only to the point for which approval has been given, at the permit holder's own risk and without assurance that approval for the occupancy or the utilization of the entire premises, equipment or operations will be granted.

105.3.5 Posting the permit. Issued permits shall be kept on the premises designated therein at all times and shall be readily available for inspection by the fire code official.

105.3.6 Compliance with code. The issuance or granting of a permit shall not be construed to be a permit for, or an approval of, any violation of any of the provisions of this code or of any other ordinance of the jurisdiction. Permits presuming to give authority to violate or cancel the provisions of this code or other ordinances of the jurisdiction shall not be valid. The issuance of a permit based on construction documents and other data shall not prevent the fire code official from requiring the correction of errors in the construction documents and other data. Any addition to or alteration of approved construction documents shall be approved in advance by the fire code official, as evidenced by the issuance of a new or amended permit.

105.3.7 Information on the permit. The fire code official shall issue all permits required by this code on an approved form furnished for that purpose. The permit shall contain a general description of the operation or occupancy and its location and any other information required by the fire code official. Issued permits shall bear the signature of the fire code official or other approved legal authorization.

new key when a lock is changed or rekeyed. The key to such lock shall be secured in the key box.

SECTION 507 HAZARDS TO FIRE FIGHTERS

507.1 Trapdoors to be closed. Trapdoors and scuttle covers, other than those that are within a dwelling unit or automatically operated, shall be kept closed at all times except when in use.

507.2 Shaftway markings. Vertical shafts shall be identified as required by this section.

507.2.1 Exterior access to shaftways. Outside openings accessible to the fire department and which open directly on a hoistway or shaftway communicating between two or more floors in a building shall be plainly marked with the word **SHAFTWAY** in red letters at least 6 inches (152 mm) high on a white background. Such warning signs shall be placed so as to be readily discernible from the outside of the building.

507.2.2 Interior access to shaftways. Door or window openings to a hoistway or shaftway from the interior of the building shall be plainly marked with the word **SHAFTWAY** in red letters at least 6 inches (152 mm) high on a white background. Such warning signs shall be placed so as to be readily discernible.

Exception: Marking shall not be required on shaftway openings which are readily discernible as openings onto a shaftway by the construction or arrangement.

507.3 Pitfalls. The intentional design or alteration of buildings to disable, injure, maim or kill intruders is prohibited. No person shall install and use firearms, sharp or pointed objects, razor wire, explosives, flammable or combustible liquid containers, or dispensers containing highly toxic, toxic, irritant or other hazardous materials in a manner which may passively or actively disable, injure, maim or kill a fire fighter who forcibly enters a building for the purpose of controlling or extinguishing a fire, rescuing trapped occupants or rendering other emergency assistance.

SECTION 508 FIRE PROTECTION WATER SUPPLIES

508.1 Required water supply. An approved water supply capable of supplying the required fire flow for fire protection shall be provided to premises upon which facilities, buildings or portions of buildings are hereafter constructed or moved into or within the jurisdiction.

508.2 Type of water supply. A water supply shall consist of reservoirs, pressure tanks, elevated tanks, water mains or other fixed systems capable of providing the required fire flow.

508.2.1 Private fire service mains. Private fire service mains and appurtenances shall be installed in accordance with NFPA 24.

508.2.2 Water tanks. Water tanks for private fire protection shall be installed in accordance with NFPA 22.

508.3 Fire flow. Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

508.4 Water supply test. The fire code official shall be notified prior to the water supply test. Water supply tests shall be witnessed by the fire code official or approved documentation of the test shall be provided to the fire code official prior to final approval of the water supply system.

508.5 Fire hydrant systems. Fire hydrant systems shall comply with Sections 508.5.1 through 508.5.6.

508.5.1 Where required. Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

Exceptions:

1. For Group R-3 and Group U occupancies, the distance requirement shall be 600 feet (183 m).
2. For buildings equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the distance requirement shall be 600 feet (183 m).

508.5.2 Inspection, testing and maintenance. Fire hydrant systems shall be subject to periodic tests as required by the fire code official. Fire hydrant systems shall be maintained in an operative condition at all times and shall be repaired where defective. Additions, repairs, alterations and servicing shall comply with approved standards.

508.5.3 Private fire service mains and water tanks. Private fire service mains and water tanks shall be periodically inspected, tested and maintained in accordance with NFPA 25 at the following intervals:

1. Private fire hydrants (all types): Inspection annually and after each operation; flow test and maintenance annually.
2. Fire service main piping: Inspection of exposed, annually; flow test every 5 years.
3. Fire service main piping strainers: Inspection and maintenance after each use.

508.5.4 Obstruction. Posts, fences, vehicles, growth, trash, storage and other materials or objects shall not be placed or kept near fire hydrants, fire department inlet connections or fire protection system control valves in a manner that would prevent such equipment or fire hydrants from being immediately discernible. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.

508.5.5 Clear space around hydrants. A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants except as otherwise required or approved.

508.5.6 Physical protection. Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

SECTION 509 FIRE COMMAND CENTER

509.1 Features. Where required by other sections of this code and in all buildings classified as high-rise buildings by the *International Building Code*, a fire command center for fire department operations shall be provided. The location and accessibility of the fire command center shall be approved by the fire department. The fire command center shall be separated from the remainder of the building by not less than a 1-hour fire-resistance-rated fire barrier. The room shall be a minimum of 96 square feet (9 m²) with a minimum dimension of 8 feet (2438 mm). A layout of the fire command center and all features required by this section to be contained therein shall be submitted for approval prior to installation. The fire command center shall comply with NFPA 72 and shall contain the following features:

1. The emergency voice/alarm communication system unit.
2. The fire department communications system.
3. Fire-detection and alarm system annunciator system.
4. Annunciator visually indicating the location of the elevators and whether they are operational.
5. Status indicators and controls for air-handling systems.
6. The fire-fighter's control panel required by Section 909.16 for smoke control systems installed in the building.
7. Controls for unlocking stairway doors simultaneously.
8. Sprinkler valve and water-flow detector display panels.
9. Emergency and standby power status indicators.
10. A telephone for fire department use with controlled access to the public telephone system.
11. Fire pump status indicators.
12. Schematic building plans indicating the typical floor plan and detailing the building core, means of egress, fire protection systems, fire-fighting equipment and fire department access.
13. Work table.
14. Generator supervision devices, manual start and transfer features.
15. Public address system, where specifically required by other sections of this code.

SECTION 510 FIRE DEPARTMENT ACCESS TO EQUIPMENT

510.1 Identification. Fire protection equipment shall be identified in an approved manner. Rooms containing controls for air-conditioning systems, sprinkler risers and valves, or other fire detection, suppression or control elements shall be identified for the use of the fire department. Approved signs required to identify fire protection equipment and equipment location, shall be constructed of durable materials, permanently installed and readily visible.

APPENDIX B

FIRE-FLOW REQUIREMENTS FOR BUILDINGS

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

SECTION B101 GENERAL

B101.1 Scope. The procedure for determining fire-flow requirements for buildings or portions of buildings hereafter constructed shall be in accordance with this appendix. This appendix does not apply to structures other than buildings.

SECTION B102 DEFINITIONS

B102.1 Definitions. For the purpose of this appendix, certain terms are defined as follows:

FIRE FLOW. The flow rate of a water supply, measured at 20 pounds per square inch (psi) (138 kPa) residual pressure, that is available for fire fighting.

■ **FIRE-FLOW CALCULATION AREA.** The floor area, in square feet (m²), used to determine the required fire flow.

SECTION B103 MODIFICATIONS

B103.1 Decreases. The fire chief is authorized to reduce the fire-flow requirements for isolated buildings or a group of buildings in rural areas or small communities where the development of full fire-flow requirements is impractical.

B103.2 Increases. The fire chief is authorized to increase the fire-flow requirements where conditions indicate an unusual susceptibility to group fires or conflagrations. An increase shall not be more than twice that required for the building under consideration.

B103.3 Areas without water supply systems. For information regarding water supplies for fire-fighting purposes in rural and suburban areas in which adequate and reliable water supply systems do not exist, the fire code official is authorized to utilize NFPA 1142 or the *International Urban Wildland Interface Code*.

SECTION B104 FIRE-FLOW CALCULATION AREA

■ **B104.1 General.** The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building, except as modified in Section B104.3.

■ **B104.2 Area separation.** Portions of buildings which are separated by fire walls without openings, constructed in accordance with the *International Building Code*, are allowed to be considered as separate fire-flow calculation areas.

B104.3 Type IA and Type IB construction. The fire-flow calculation area of buildings constructed of Type IA and Type IB construction shall be the area of the three largest successive floors.

■ **Exception:** Fire-flow calculation area for open parking garages shall be determined by the area of the largest floor.

SECTION B105 FIRE-FLOW REQUIREMENTS FOR BUILDINGS

B105.1 One- and two-family dwellings. The minimum fire-flow requirements for one- and two-family dwellings having a fire-flow calculation area which does not exceed 3,600 square feet (344.5 m²) shall be 1,000 gallons per minute (3785.4 L/min). Fire flow and flow duration for dwellings having a fire-flow calculation area in excess of 3,600 square feet (344.5 m²) shall not be less than that specified in Table B105.1.

Exception: A reduction in required fire flow of 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system.

B105.2 Buildings other than one- and two-family dwellings. The minimum fire flow and flow duration for buildings other than one- and two-family dwellings shall be as specified in Table B105.1.

■ **Exception:** A reduction in required fire flow of up to 50 percent, as approved, is allowed when the building is provided with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 of the *International Fire Code*. Where buildings are also of Type I or II construction and are a light-hazard occupancy as defined by NFPA 13, the reduction may be up to 75 percent. The resulting fire flow shall not be less than 1,500 gallons per minute (5678 l/min) for the prescribed duration as specified in Table B 105.1.

SECTION B106 REFERENCED STANDARDS

ICC	IBC	International Building Code	B104.2, Table B105.1
ICC	IFC	International Fire Code	B105.2
ICC	IUWIC	International Urban-Wildland Interface Code	B103.3
NFPA	1142	Standard on Water Supplies for Suburban and Rural Fire Fighting	B103.3

TABLE B105.1
MINIMUM REQUIRED FIRE FLOW AND FLOW DURATION FOR BUILDINGS^a

FIRE-FLOW CALCULATION AREA (square feet)					FIRE FLOW (gallons per minute) ^c	FLOW DURATION (hours)
Type IA and IB ^b	Type IIA and IIIA ^b	Type IV and V-A ^b	Type IIB and IIIB ^b	Type V-B ^b		
0-22,700	0-12,700	0-8,200	0-5,900	0-3,600	1,500	2
22,701-30,200	12,701-17,000	8,201-10,900	5,901-7,900	3,601-4,800	1,750	
30,201-38,700	17,001-21,800	10,901-12,900	7,901-9,800	4,801-6,200	2,000	
38,701-48,300	21,801-24,200	12,901-17,400	9,801-12,600	6,201-7,700	2,250	
48,301-59,000	24,201-33,200	17,401-21,300	12,601-15,400	7,701-9,400	2,500	
59,001-70,900	33,201-39,700	21,301-25,500	15,401-18,400	9,401-11,300	2,750	
70,901-83,700	39,701-47,100	25,501-30,100	18,401-21,800	11,301-13,400	3,000	3
83,701-97,700	47,101-54,900	30,101-35,200	21,801-25,900	13,401-15,600	3,250	
97,701-112,700	54,901-63,400	35,201-40,600	25,901-29,300	15,601-18,000	3,500	
112,701-128,700	63,401-72,400	40,601-46,400	29,301-33,500	18,001-20,600	3,750	
128,701-145,900	72,401-82,100	46,401-52,500	33,501-37,900	20,601-23,300	4,000	4
145,901-164,200	82,101-92,400	52,501-59,100	37,901-42,700	23,301-26,300	4,250	
164,201-183,400	92,401-103,100	59,101-66,000	42,701-47,700	26,301-29,300	4,500	
183,401-203,700	103,101-114,600	66,001-73,300	47,701-53,000	29,301-32,600	4,750	
203,701-225,200	114,601-126,700	73,301-81,100	53,001-58,600	32,601-36,000	5,000	
225,201-247,700	126,701-139,400	81,101-89,200	58,601-65,400	36,001-39,600	5,250	
247,701-271,200	139,401-152,600	89,201-97,700	65,401-70,600	39,601-43,400	5,500	
271,201-295,900	152,601-166,500	97,701-106,500	70,601-77,000	43,401-47,400	5,750	
295,901-Greater	166,501-Greater	106,501-115,800	77,001-83,700	47,401-51,500	6,000	
—	—	115,801-125,500	83,701-90,600	51,501-55,700	6,250	
—	—	125,501-135,500	90,601-97,900	55,701-60,200	6,500	
—	—	135,501-145,800	97,901-106,800	60,201-64,800	6,750	
—	—	145,801-156,700	106,801-113,200	64,801-69,600	7,000	
—	—	156,701-167,900	113,201-121,300	69,601-74,600	7,250	
—	—	167,901-179,400	121,301-129,600	74,601-79,800	7,500	
—	—	179,401-191,400	129,601-138,300	79,801-85,100	7,750	
—	—	191,401-Greater	138,301-Greater	85,101-Greater	8,000	

For SI: 1 square foot = 0.0929 m², 1 gallon per minute = 3.785 L/m, 1 pound per square inch = 6.895 kPa.

a. The minimum required fire flow shall be permitted to be reduced by 25 percent for Group R.

b. Types of construction are based on the *International Building Code*.

c. Measured at 20 psi.